United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
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Chicago, Illinois 60604

Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

U.S. EPA Announces Changes in Refuse Hideaway Superfund Site Cleanup Plan

Middleton, Wisconsin **October 1998**

This Fact Sheet Will Tell You About

- The site's history
- The new ground-water cleanup plan
- Why the ground-water cleanup plan is being modified
- How you can get more information about the site

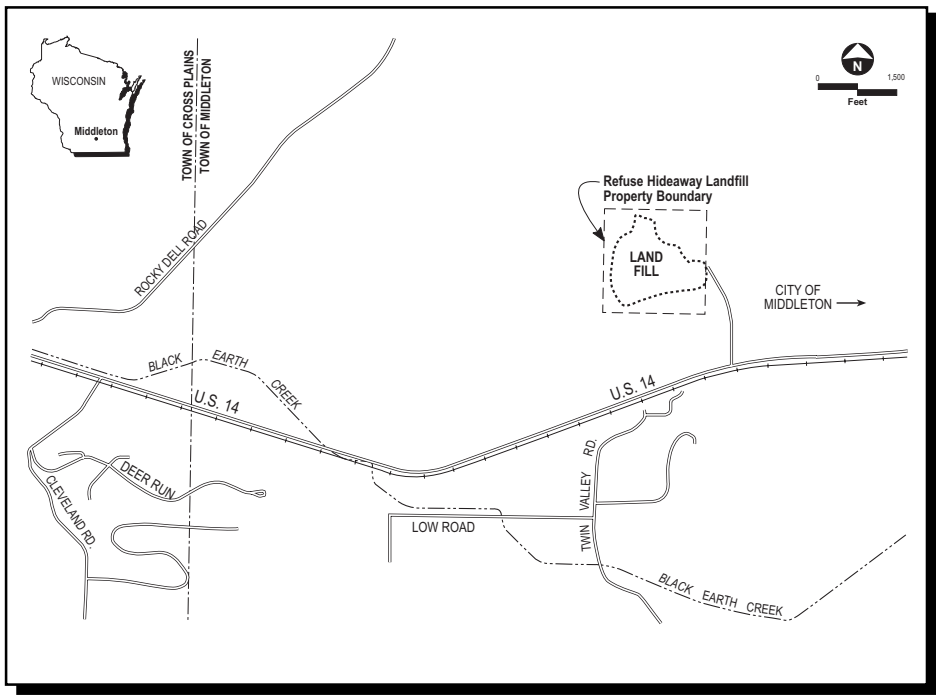

Figure 1
Location Map

For more detailed information, site-related documents may be reviewed at:

Middleton Public Library

Introduction

The U.S. Environmental Protection Agency (U.S. EPA) has modified the 1995 ground-water cleanup plan, which is formally called a Record of Decision (ROD), at the Refuse Hideaway Superfund Site in Middleton, Wisconsin. This fact sheet explains the significant differences in the 1995 ROD and why the modifications are necessary. It is a summary of the official document entitled "Explanation of Significant Differences, Refuse Hideaway Landfill Site, Middleton, Wisconsin," which is available for review at the information repository for the site (see page 3).

Background and Site History

The Refuse Hideaway Superfund site covers 23 acres of a 40-acre parcel of land in the Town of Middleton in rural Dane County, Wisconsin. The site is located on the north side of U.S. Highway 14 approximately 2 miles west of the City of Middleton and 4 miles east of the Village of Cross Plains. The Town of Cross Plains is located just west of the site.

The landfill is bounded on the north and west side by a Christmas tree farm, on the south by a corn field and U.S. 14, and on the east by unused agricultural land. Several large dairy farms and

smaller dairy farms are located near the site. Scattered rural residences are located near the site on U.S. 14, Rocky Dell Road, Low Road, Twin Valley Road, and Blackhawk Road. In addition, the Deer Run Heights subdivision is approximately 1 mile southwest of the site. Several recently completed and developing subdivisions are located southeast of the site near Blackhawk Road. Approximately 53 homes are within 1 mile of the site.

The landfill is located on the side of a hill in the upper Black Earth Creek watershed. Black Earth Creek, a highly productive trout stream, drains 46 square miles in Dane County. Ground water generally flows southwest from the site. Surface water from the site drains into Black Earth Creek.

Municipal, commercial, and industrial wastes were disposed of at the privately owned unlined landfill between 1974 and 1988. The landfill owner reported receiving full barrels of glue and paint, spray-paint booth by-products and paint stripper sludge, and spill residue containing methylene chloride, acetone, and other solvents. Based on volume calculations, the landfill may hold up to 1.2 million cubic yards of waste.

In 1988, the Wisconsin Department of Natural Resources (WDNR) discovered volatile organic compounds (VOCs) in private wells southwest of the site. VOCs are compounds of primarily carbon, oxygen, and hydrogen characterized by their tendency to evaporate quickly and easily. Some VOCs are believed to cause cancer in humans. Examples of VOCs include dry cleaning fluid, lighter fluid, paint thinners, and gasoline components.

In late 1988, the landfill owner complied with a WDNR order to close the landfill, cover it with 2 feet of clay, 18 inches of soil, 6 inches of top soil, and a vegetative cover. The landfill owner declared bankruptcy in 1989. The WDNR subsequently took on the continued investigation and cleanup of the site, as well as all operation and maintenance activities. Subsequent tests revealed contaminated ground water in three private wells southeast of the site. Landfill records showed that contaminants found in the private wells were disposed in the landfill. One contaminated well was taken out of service, the others were fitted with treatment systems.

The primary contaminants of concern at the site are tetrachloroethene (PCE) and trichloroethene (TCE), which were both used as solvents and are VOCs. WDNR information indicated the plume, or underground area, of contaminated ground water extended as far as 3,800 feet southwest of the site. In 1991, the WDNR installed systems to collect methane gas and leachate at the landfill. Both systems are still in use at the site. In 1992, the WDNR repaired surface erosion on the landfill cap.

The site was added to the National Priorities List in 1992. The National Priorities List is a roster of the nation's most serious abandoned or uncontrolled hazardous waste sites. In 1993, the WDNR began a detailed study of the nature and extent of contamination at the site. Based on the results of that study and public input, the WDNR and U.S. EPA outlined a cleanup plan for the site in the 1995 ROD, which called for:

- continuing the existing collection of leachate and gas from the landfill;
- implementing deed restrictions to control future development of the site;
- continuing the existing maintenance of the landfill cap;
- pumping contaminated ground water to the surface, treating it, and reinjecting it into the ground;
- continuing the existing treatment of two private wells already contaminated; and
- treating any other private well that may become contaminated.

The cleanup standards established for VOCs in the ROD were 200 parts per billion (i.e., ground water containing more than 200 parts per billion of VOCs would be pumped to the surface and treated).

Recent Site Activities

In 1996, U.S EPA became the "lead" agency on the site in order to facilitate an agreement with potentially responsible parties (PRPs) at the site. A group of 42 PRPs (waste generators and transporters) agreed to design a ground-water extraction and treatment system.

In 1998, the PRPs began designing the cleanup plan. As part of this design work, ground-water samples were taken from 51 monitoring wells near the site as well as the leachate extraction wells and 13 gas extraction wells on the site. The sampling was completed in March 1998. The results of the sampling are included in the "Predesign and Additional Studies Report." This report may be found at the information repository for the site.

Explanation of Significant Differences

The results of the 1998 ground-water sampling revealed that VOC contamination has dropped below 200 parts per billion in all 51 off-site ground-water monitoring wells. This is below the cleanup standards set in the 1995 ROD. In other words, because the 1995 ROD called for pumping ground water to the surface and treating it to remove VOCs above 200 parts per billion, and because ground water is no longer contaminated above this level, ground water pumping and treating is no longer required by the 1995 ROD.

The decrease in VOC concentrations in ground water is likely the result of several processes. Leachate and gas collection from the landfill remove significant amounts of VOCs from the landfill and thus reduce the mass of VOCs entering the ground water. Natural attenuation also accounts for some of the decrease in VOC levels. The 1998 sampling revealed that conditions in and beneath the landfill are appropriate for degradation of PCE and TCE, two of the VOCs present. Conditions appropriate for natural degradation of 1,2-dichloroethene (DCE) and vinyl chloride, two other VOCs found at the site, are present around and downgradient (southwest) of the landfill. These four VOCs constitute the majority of the VOCs found at the site.

What's Next

U.S. EPA and WDNR will continue to monitor 12 private drinking wells in the Deer Run Heights subdivision and 21 ground-water monitoring wells near the site to ensure the VOC contamination continues to naturally decrease. As previously mentioned, leachate and gas collection will continue at the landfill. The landfill cap will also be inspected and regularly maintained. These systems will continue to control the contaminant source of the landfill.

For Additional Information

Anyone interested in learning more about the Explanation of Significant Differences or other site-related information is encouraged to review the information repository for the Refuse Hideaway site. The information repository is located at the **Middleton Public Library, 7425 Hubbard Avenue, Middleton**. An administrative record containing information upon which U.S. EPA based its decisions has also been placed at the library. For additional information on the Refuse Hideaway Site, please contact:

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Mailing List Additions

If you did not receive this fact sheet in the mail, you are not on the mailing list for the Refuse Hideaway Superfund Site. To add your name, or to make a correction, please fill out this form and mail it to:

Susan Pastor
U.S. EPA Region 5
Office of Public Affairs (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604

Name _____

Address _____

Affiliation _____

Phone (Daytime) _____ (Evening) _____

Once you are on the mailing list, you will automatically receive information from U.S. EPA regarding the Refuse Hideaway Site.

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Questions and Answers

Refuse Hideaway Superfund Site

Middleton, Wisconsin **October 1998**

U.S. Environmental Protection Agency (U.S. EPA) representatives interviewed local residents and officials in September 1998 about the Refuse Hideaway Superfund site to find out their concerns. During the interviews, several questions were repeatedly asked and here are the answers to those questions.

Question: What has happened at the Refuse Hideaway site in the last three years?

U.S. EPA took over as the lead agency in 1996 to develop a ground-water cleanup plan for the site. In February and March 1998, additional investigations were conducted to assess current conditions at the site. The investigation included collecting and analyzing gas samples from 13 landfill gas extraction wells, and 11 landfill gas probes, leachate samples from 7 leachate extraction wells and ground-water samples from 51 monitoring wells. The "Predesign and Additional Studies Report" summarizing the results of those investigations was completed in July 1998. A copy of this report is available at the information repository.

Question: When will a decision be made on how to address the contaminated ground water near the site?

U.S. EPA recently determined that the contaminated ground-water plume does not need to be pumped out of the ground and treated because contamination in the ground water is decreasing naturally. This decision was based on the recently completed testing previously described and results of ground-water monitoring. Leachate and gas collection will still occur at the landfill, as will landfill cap maintenance, and ground-water monitoring.

Question: Is the contaminated ground-water plume still moving away from the site?

The results of U.S. EPA's additional studies indicate that contaminant concentrations in ground water near the landfill have decreased significantly and that the contaminants are being degraded naturally. It appears that the contaminated ground-water plume is no longer moving away from the site. Tests from shallow and deep monitoring wells on the far edge of the plume did not show contamination. Medium-depth wells near the edge of the plume contained low levels of contamination.

Question: How often are private wells near the site monitored?

The WDNR has established a long-term monitoring program that includes 21 monitoring wells near the site and 12 private wells in the Deer Run Heights subdivision. The testing for VOCs is conducted annually or semi-annually in May and October. The private wells that are monitored are located on Deer Run Road, Highway 14, and other residences close to the plume. The July 1994 fact sheet sent by the WDNR shows the approximate location of the monitoring wells (see information repository if you do not have a copy of this fact sheet).

Question: Who will pay for the cleanup?

A group of 42 companies that owned and operated the site, and transported or generated the hazardous waste dumped at the site and the WDNR have agreed to pay for the investigations at the site. U.S. EPA will discuss with them their willingness to pay for the remainder of the work. If they agree to pay, the work will be done with U.S. EPA oversight.

Question: Whom can I contact for more information regarding Refuse Hideaway?

The following people may be contacted for more information regarding Refuse Hideaway:

Susan Pastor
Community Involvement Coordinator
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You may also review the material at the information repository. The information repository is located at the Middleton Public Library, 7426 Hubbard Avenue, Middleton. The information repository contains site-specific information regarding Refuse Hideaway and the Superfund process in general.